



EDITED BY

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The Oxford Handbook *of*
**CLIMATE CHANGE
AND SOCIETY**

OXFORD HANDBOOK OF

CLIMATE CHANGE AND SOCIETY

Edited by

JOHN S. DRYZEK,
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AND DAVID S. SCHLOSBERG



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CONTENTS

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<i>List of Contributors</i>	xi
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PART I: INTRODUCTION

1. Climate Change and Society: Approaches and Responses	3
JOHN S. DRYZEK, RICHARD B. NORGAARD, AND DAVID SCHLOSBERG	

PART II: THE CHALLENGE AND ITS HISTORY

2. A Truly Complex and Diabolical Policy Problem	21
WILL STEFFEN	
3. The Nature of the Problem	38
DALE JAMIESON	
4. The Poverty of Climate Economics	55
MARK SAGOFF	
5. The Development of the Concept of Dangerous Anthropogenic Climate Change	67
SPENCER WEART	
6. Voices of Vulnerability: The Reconfiguration of Policy Discourses	82
MAARTEN HAJER AND WYTSKE VERSTEEG	
7. Environmentality	96
TIMOTHY W. LUKE	

PART III: SCIENCE, SOCIETY, AND PUBLIC OPINION

8. The Physical Sciences and Climate Politics	113
HANS VON STORCH, ARMIN BUNDE, AND NICO STEHR	
9. Cosmopolitan Knowledge: Climate Science and Global Civic Epistemology	129
SHEILA JASANOFF	
10. Organized Climate Change Denial	144
RILEY E. DUNLAP AND AARON M. MCCRIGHT	

11. Communicating Climate Change: Closing the Science-Action Gap 161
SUSANNE C. MOSER AND LISA DILLING

PART IV: SOCIAL IMPACTS

12. Economic Estimates of the Damages Caused by Climate Change 177
ROBERT MENDELSON
13. Weighing Climate Futures: A Critical Review of the Application of
Economic Valuation 190
RICHARD B. NORGAARD
14. Global Change Vulnerability Assessments: Definitions, Challenges,
and Opportunities 205
COLIN POLSKY AND HALLIE EAKIN
15. Health Hazards 217
ELIZABETH G. HANNA
16. Indigenous Peoples and Cultural Losses 232
ROBERT MELCHIOR FIGUEROA

PART V: SECURITY

17. Climate Change and 'Security' 251
NILS GILMAN, DOUG RANDALL, AND PETER SCHWARTZ
18. Human Security 267
JON BARNETT
19. Climate Refugees and Security: Conceptualizations, Categories,
and Contestations 278
TIMOTHY DOYLE AND SANJAY CHATURVEDI

PART VI: JUSTICE

20. From Efficiency to Justice: Utility as the Informational Basis of
Climate Strategies, and Some Alternatives 295
SIMON DIETZ
21. Climate Justice 309
STEPHEN M. GARDINER
22. International Justice 323
PAUL BAER
23. Intergenerational Justice 338
RICHARD B. HOWARTH

PART VII: PUBLICS AND MOVEMENTS

- | | |
|---|-----|
| 24. Public Opinion and Participation | 355 |
| MATTHEW C. NISBET | |
| 25. Social Movements and Global Civil Society | 369 |
| RONNIE D. LIPSCHUTZ AND CORINA MCKENDRY | |
| 26. Translocal Climate Justice Solidarities | 384 |
| PAUL ROUTLEDGE | |
| 27. Climate Denial: Emotion, Psychology, Culture, and Political Economy | 399 |
| KARI MARIE NORGAAARD | |
| 28. The Role of Religions in Activism | 414 |
| LAUREL KEARNS | |

PART VIII: GOVERNMENT RESPONSES

- | | |
|---|-----|
| 29. Comparing State Responses | 431 |
| PETER CHRISTOFF AND ROBYN ECKERSLEY | |
| 30. Climate Change Politics in an Authoritarian State: The Ambivalent Case of China | 449 |
| MIRANDA A. SCHREURS | |
| 31. Cities and Subnational Governments | 464 |
| HARRIET BULKELEY | |
| 32. Issues of Scale in Climate Governance | 479 |
| DANIEL A. FARBER | |
| 33. Decarbonizing the Welfare State | 490 |
| IAN GOUGH AND JAMES MEADOWCROFT | |
| 34. Discourses of the Global South | 504 |
| SIVAN KARTHA | |

PART IX: POLICY INSTRUMENTS

- | | |
|---|-----|
| 35. Economic Policy Instruments for Reducing Greenhouse Gas Emissions | 521 |
| DAVID HARRISON, ANDREW FOSS, PER KLEVNAS, AND DANIEL RADOV | |
| 36. Policy Instruments in Practice | 536 |
| ANDREW JORDAN, DAVID BENSON, RÜDIGER WURZEL, AND ANTHONY ZITO | |

- | | |
|--------------------------------|-----|
| 37. Carbon Trading: A Critique | 550 |
| CLIVE L. SPASH | |
| 38. Redesigning Energy Systems | 561 |
| MARK DIESENDORF | |

PART X: PRODUCERS AND CONSUMERS

- | | |
|--|-----|
| 39. Corporate Responses | 581 |
| SIMONE PULVER | |
| 40. Is Green Consumption Part of the Solution? | 594 |
| ANDREW SZASZ | |

PART XI: GLOBAL GOVERNANCE

- | | |
|--|-----|
| 41. Selling Carbon: From International Climate Regime to Global Carbon Market | 611 |
| MATTHEW PATERSON | |
| 42. Improving the Performance of the Climate Regime: Insights from Regime Analysis | 625 |
| ORAN R. YOUNG | |
| 43. Reconceptualizing Global Governance | 639 |
| PAUL G. HARRIS | |
| 44. The Role of International Law in Global Governance | 653 |
| WALTER F. BABER AND ROBERT V. BARTLETT | |

PART XII: RECONSTRUCTION

- | | |
|---|-----|
| 45. The Democratic Legitimacy of Global Governance after Copenhagen | 669 |
| KARIN BÄCKSTRAND | |
| 46. New Actors and Mechanisms of Global Governance | 685 |
| FRANK BIERMANN | |
| 47. Resilience | 696 |
| W. NEIL ADGER, KATRINA BROWN, AND JAMES WATERS | |

- | | |
|----------------------|-----|
| <i>Name Index</i> | 711 |
| <i>Subject Index</i> | 716 |

PART I

INTRODUCTION

CHAPTER 1

CLIMATE CHANGE AND SOCIETY: APPROACHES AND RESPONSES

JOHN S. DRYZEK, RICHARD B. NORGAARD,
AND DAVID SCHLOSBERG

CLIMATE change presents perhaps the most profound challenge ever to have confronted human social, political, and economic systems. The stakes are massive, the risks and uncertainties severe, the economics controversial, the science besieged, the politics bitter and complicated, the psychology puzzling, the impacts devastating, the interactions with other environmental and non-environmental issues running in many directions. The social problem-solving mechanisms we currently possess were not designed, and have not evolved, to cope with anything like an interlinked set of problems of this severity, scale, and complexity. There are no precedents. So far, we have failed to address the challenge adequately. Problems will continue to manifest themselves—both as we try to prevent and as we try to adapt to the consequences of climate change—so human systems will have to learn how better to respond. One of the central social, political, and economic questions of the century is: how then do we act?

In this Handbook we have brought together a representation of the best scholars on climate change and society. We identified the key approaches and selected authors to represent and engage with their literatures in a manner that would be informative and interesting to scholars in other areas and to newcomers as well. We have encouraged authors to make linkages between approaches and to other chapters. We hope the Handbook will contribute to the integration of understanding needed to tackle so systemic and complex a problem as the relationship between climate change and society. At the same time, the Handbook is by no means a synthesis, nor does it provide a unified diagnosis of what is wrong (and right) with contemporary human systems, an integrated and coherent program for research, or a singular blueprint for collective action. While we have views of our own on such questions, some of which will come through in this introductory chapter, there is no unified line followed by our authors as they address the complex relationship between people, societies, and the natural world. Most (not all) agree on the magnitude and

severity of the problems. But there are substantial differences when it comes to identifying what matters, what is wrong, what is right, how it got to be that way, who is responsible, and, not least, what should be done.

Commissioning, reading, and editing these contributions has left us acutely aware of the limitations of human knowledge—and the major constraints on intelligent human action—when it comes to complex social-ecological systems. Climate change is, as Steffen explains in his opening chapter, a truly diabolical problem. It is additionally devilish in the mismatch between human capacities to act and the scale, scope, and immediacy of collective action seemingly demanded. Nevertheless we have to start somewhere, and we have aspired in this Handbook to commission and compile the best available set of intellectual resources for the multiple tasks ahead. Given the complexity of what we face, no single volume can offer commentary on absolutely everything that is needed. Yet we have aspired to a measure of comprehensiveness in addressing the range of ways climate change plays out in the social realm.

Our main task is, then, to lay out the various ways that climate change affects society, and what society might do in response. The authors represent a variety of disciplinary understandings and intellectual frameworks that can be brought to bear. In this chapter we introduce the key topics, themes, layers, and issues, before concluding with a discussion of our chosen structure. We begin with the science that first identified climate change as a problem, and how it is received by and in society and government.

1 SCIENCE AND SOCIETY

While the effects of climate change—floods, drought, heat stress, species loss, and ecological change—can be experienced very directly, their conceptualization as connected phenomena with common causes is due to climate science, which therefore plays a very basic part when it comes to climate change and society. Natural scientists (such as Steffen in his chapter) tell us that there is now consensus in the climate science community about the reality of climate change, and near consensus on its severity and the broad range of attendant harms and risks. But that consensus does not of course mean the science is then accepted as the basis for policy. Climate science does not provide certain future projections of risks and damages. The projections are entangled in assumptions about how human systems respond over time—as well as natural ones. Climate is an outcome of a complex geo-atmospheric-ecological system, and complex systems always have a capacity to surprise by behaving in unanticipated ways. Climate change, furthermore, is only one of a range of interacting phenomena of global environmental change caused or affected by human activity. We may indeed be entering the unknown territory of an ‘anthropocene’ era where people drive truly major changes in global systems. Thus while the broad sweep of history shows climate change being taken ever more seriously as an issue within the scientific community and eventually far beyond (see Weart’s chapter), we are dealing with complex processes with uncertain outcomes rather than simple facts, and the public and politicians have difficulty seeing the drivers to collective action in any simple way. The agendas of climate science are now affected by larger social and political processes (see the